

Seat No. : _____

AG-132

April-2015

B.Sc., Sem.-VI

Elective : Biotechnology/Environmental Science

SEC-311 : Biology of Fungi

Time : 3 Hours]

[Max. Marks : 70

1. Answer the following questions : (any **two**) **14**
 - (A) Explain ultra-structure of fungi.
 - (B) Explain physiological aspect of fungi in detail.
 - (C) Describe phylogenetic and molecular approach for fungal classification.
 - (D) Enlist the classes of fungi and describe any one class in detail.

2. Answer the following questions : (any **two**) **14**
 - (A) Define Heterokaryosis and explain with diagram the process.
 - (B) Explain reproduction of *Saccharomyces*.
 - (C) Describe genetic manipulation in *Neurospora*.
 - (D) Explain characteristics of *Pleurotus ostreatus*.

3. Answer the following questions : (any **two**) **14**
 - (A) Explain causative agent and diagnosis of systematic mycoses.
 - (B) Describe control and treatment of superficial mycoses.
 - (C) Explain causative agent and diagnosis of cutaneous mycoses.
 - (D) Describe control and treatment of sub-cutaneous mycoses.

4. Answer the following questions : (any **two**) **14**
 - (A) Explain inoculum development for fungal fermentation.
 - (B) Describe role of fungi in Biodeterioration.
 - (C) List secondary metabolites produced by fungi giving its importance.
 - (D) Explain the methods of preservation of fungal cultures.

5. Answer the following questions : (All are compulsory)

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- (1) Name the material subjected to Biodeterioration.
 - (2) Which fungus is producing Aflatoxin ?
 - (3) Give the example of sac-fungi.
 - (4) Which fungi shows recombination by parasexual cycle ?
 - (5) Which yeast is useful for the production of beverages ?
 - (6) Name of any two semi-synthetic antibiotics.
 - (7) Which fungi produces ochratoxin ?
 - (8) Write symptoms after ingesting fungal toxins.
 - (9) Give the example of fungi causing white-rot.
 - (10) Which fungi are used for production of enzyme ?
 - (11) Which fungi are responsible for genitourinary tract infection ?
 - (12) Which taxonomic class mushroom fungi belongs to ?
 - (13) Define Bioremediation.
 - (14) Give the two examples of *Zygomycete* fungi.
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